



RISA  
Annual Meeting  
.....  
*2013 Report*



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*Credit: Cooperative Institute for Research in Environmental Sciences*



## OVERVIEW OF THE MEETING

On December 4th and 5th, 2013, the National Oceanic and Atmospheric Administration (NOAA) hosted the 4th annual meeting of the Regional Integrated Sciences and Assessments (RISA) Program in La Jolla, California. The purpose of the meeting was to build on the progress made in the previous three annual meetings in order to:

- Identify priorities for research and cross-regional collaboration related to extreme climate events and climate adaptation
- Share findings and methodologies related to research on knowledge networks and information pathways
- Establish a team, co-managed by NOAA and the RISA teams, focused on implementing near-term, programmatic priorities (e.g. a coordinated communications and outreach plan)

Participants included approximately four researchers from each of the eleven RISA teams, and participants from the NOAA Climate Program Office's leadership, the United States Global Change Research Program, the Australian Commonwealth Scientific and Industrial Research Organization (CSIRO), and the California Ocean Science Trust (CALOST), as well as representation from the government and legislative affairs office at the Scripps Institution of Oceanography.

While the first day of the meeting consisted of knowledge transfer around research themes, the second day focused on the practice of user-driven research. The methodology used to organize the meeting was heavily participatory and inclusive, drawing on recommendations from previous meetings and using multiple methods to engage participants. In turn, this report provides a summary of insights and outcomes, which can inform future annual meetings.

The agenda and list of participants are included in the appendices at the end of the report.



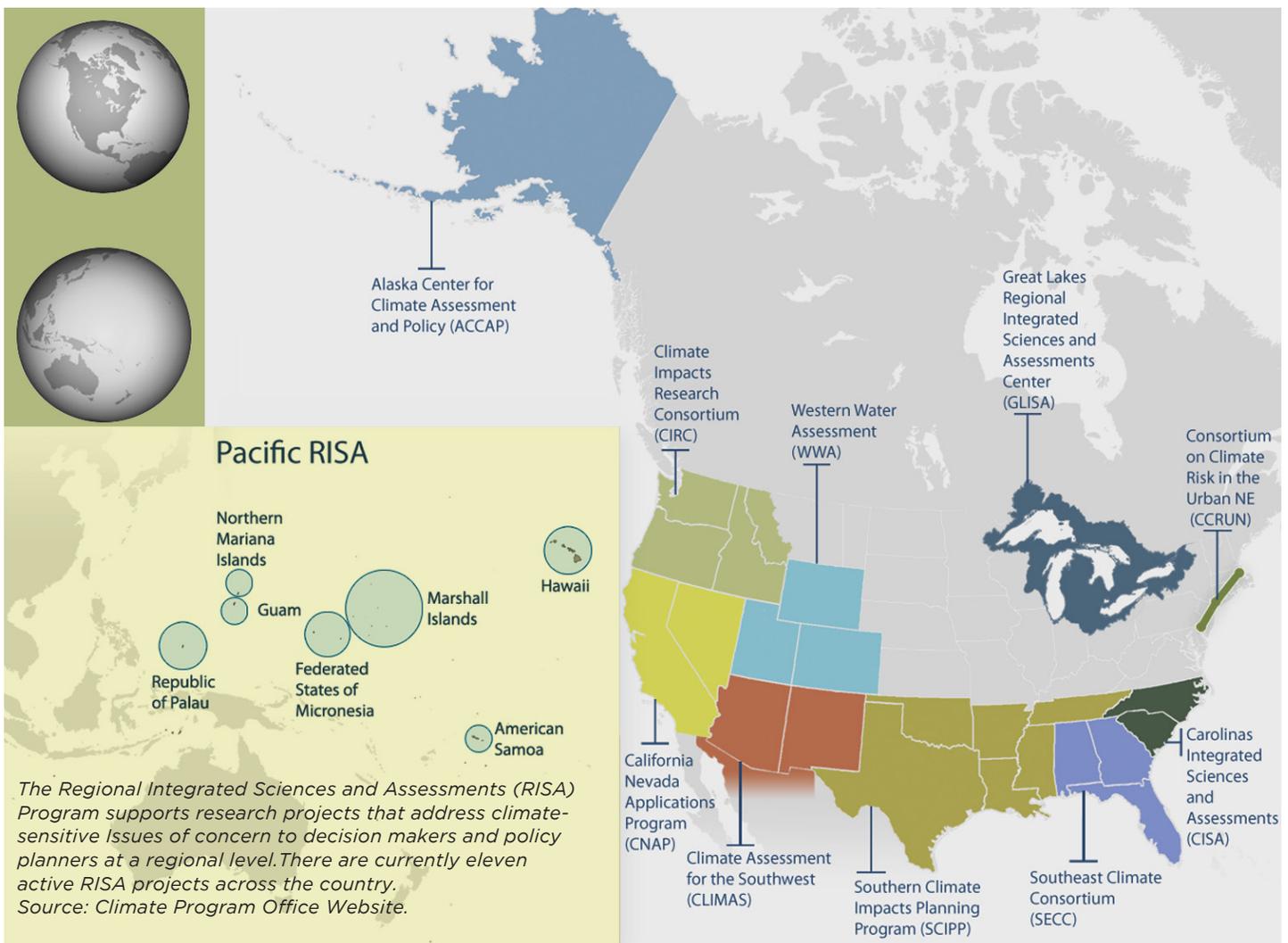
*Credit: Dirk Hansen*



## ABOUT THE RISA PROGRAM

NOAA's Regional Integrated Sciences and Assessments (RISA) program currently supports eleven research teams that help expand and build the nation's capacity to prepare for and adapt to climate variability and change (see map below for regions covered by the teams). Central to the RISA approach are commitments to process, partnership, and trust building. RISA teams work with public and private user communities to:

- Advance understanding of policy, planning and management contexts;
- Develop knowledge on impacts, vulnerabilities, and response options through interdisciplinary research and participatory processes;
- Innovate products and tools to enhance the use of science in decision making; and
- Test diverse governance structures for managing scientific research.





## CURRENT STATUS OF THE RISA PROGRAM

RISA teams work to ensure the information they develop is usable in particular decision contexts, largely by basing their research on needs refined through engagement with local, state, tribal, and federal users. Some RISAs work hand-in-hand with users to analyze the implications of the information and produce more in-depth knowledge together. In this capacity, RISAs serve a dual role of conducting research and serving as boundary organizations. By drawing on the strength of other boundary organizations with established relationships with users in their regions, RISAs operate within a continuum of research and engagement to fulfill a niche that is appropriate to the needs of diverse local contexts.

Over the past 19 years, RISA teams have provided tremendous public value ranging from specific decision relevant information tools or scientific reports to lasting capacity to factor climate information into ongoing risk management. For example, the Climate Impacts Research Consortium RISA team used participatory tools to work with a community in the Pacific Northwest to engage the community to talk about land use and development, specifically what the community wanted to achieve and how they might articulate the pathways to achieve those goals, as a means of discussing adaptive risk management. Over this extended period of time, RISAs have incrementally improved capacity across regions and trained younger generations of scientists in the practice of user-driven research. For example, based on her experience as a doctoral student working in the Southeast Climate Consortium, Dr. Victoria Keener went on to contribute to the conceptualization and successful implementation of the Pacific RISA – Phase 2. Similarly, after extensive experience with the Climate Assessment of the Southwest, Dr. Maria Carmen Lemos helped establish the Great Lakes Integrated Sciences and Assessments (GLISA) team. This capacity transfer helps overcome institutional barriers to responding to the needs of new regions or expanding existing regions. Other federal partners are beginning to build internal capacity for user-driven science and boundary work. Dividing roles and responsibilities will be key to establishing effective partnerships with these new players especially since the new federal entities are building in part on the existing RISA partnerships established by the RISAs.



*Credit: Photo Courtesy of Cooperative Institute for Research in Environmental Sciences*



## CURRENT STATUS OF THE RISA PROGRAM

The sessions on extreme events and knowledge networks at the annual meeting also contributed to improving integration at the CPO and NOAA. NOAA currently uses integrating themes called ‘societal challenges’ designed to bring research and service capacity to bear on issues of public value relevant to the NOAA mission. The sessions showcased how communities across the United States are preparing for sea level rise and coastal flooding, preparing for drought and water resources challenges in a changing climate, and sustaining marine ecosystems in a changing climate. The session on knowledge networks showed how communities across the United States are preparing for the impacts of climate variability and change and also reducing the nation’s vulnerability to extreme weather and climate.



*Brazos River runs dry in Knox County, Texas, in summer 2011.  
Photo by Earl Nottingham, © Texas Parks & Wildlife Department.*



## DEVELOPING THE ANNUAL MEETING

The RISA annual meeting has become a key component of strengthening a user-driven, interdisciplinary science community with climate as an integrating theme. This was the fourth in a series of meetings and built on the feedback from the previous three annual meetings. RISA teams were very involved in organizing the meeting. The community provided feedback on the agenda, the questions that drive the sessions, the structure of the meeting, and even the meeting location. RISA presenters were coached by session leads to talk concretely about impacts and outcomes (how their research is significant for their stakeholders and the RISA community at large). When possible, their presentations were reviewed ahead of time and specific feedback was provided. Much time was built into the agenda for open-ended discussion, both in small groups and in plenary, in formal and informal settings in order to allow for a variety of ways to participate.



*Credit: Cooperative Institute for Research in Environmental Sciences*

For example, at the beginning of the meeting we gave the participants a “personal white board” which had a proposed mission statement (based on previous vision exercises) and objectives within the proposed mission. Participants were asked to use the two days to reflect on and provide feedback on the mission statement and the objectives, as well as any thoughts, insights, and questions that arose from presentations and discussions. This annual meeting report draws in part on the written feedback provided on the “personal white boards.”



## EXTREME EVENTS

The session on extreme events featured six talks addressing different types of extreme climate-related events across the United States, including the Colorado Floods, Hurricane Sandy in New York City, drought in the Southwest, El Niño Southern Oscillation (ENSO) impacts in the Southeast, and various extreme events in Alaska (wildfires and coastal storms). One talk focused on how to effectively work with stakeholders in the face of droughts. In telling the story of the extreme event, each talk articulated the:

- Use and value of climate information to prepare for, respond to, and reduce impacts of the particular extreme event
- Links between science and decision-making for extreme events
- How RISA scientific work was useful and beneficial to communities, how it increased public awareness and how it reduced impacts and risks to humans
- Transferable lessons to other RISAs or implications for broader applicability.



The talks on the regional RISA teams' response to the Colorado floods and Hurricane Sandy in particular elicited thoughts on pilot projects for response and preparedness. Responses had to be fast, accurate, and useful; they had to overcome pressures to quickly restore or rebuild basic public services and infrastructure. In the first two instances, the extreme events tested the strength of the RISA network in the region and the adaptability of the RISA teams to respond to the events as they were evolving.



## EXTREME EVENTS

On September 11, 2013, at about 10 pm., the flood sirens in Boulder rang, evacuation of the University of Colorado began and the roads in and out of Boulder were inaccessible. Earlier that morning the Western Water Assessment (WWA) RISA team had met for a strategy planning exercise. Following this timely planning activity, WWA coordinated a rapid response to the flooding event that included identifying a small team with a leader; using web and social media to facilitate fast communication;



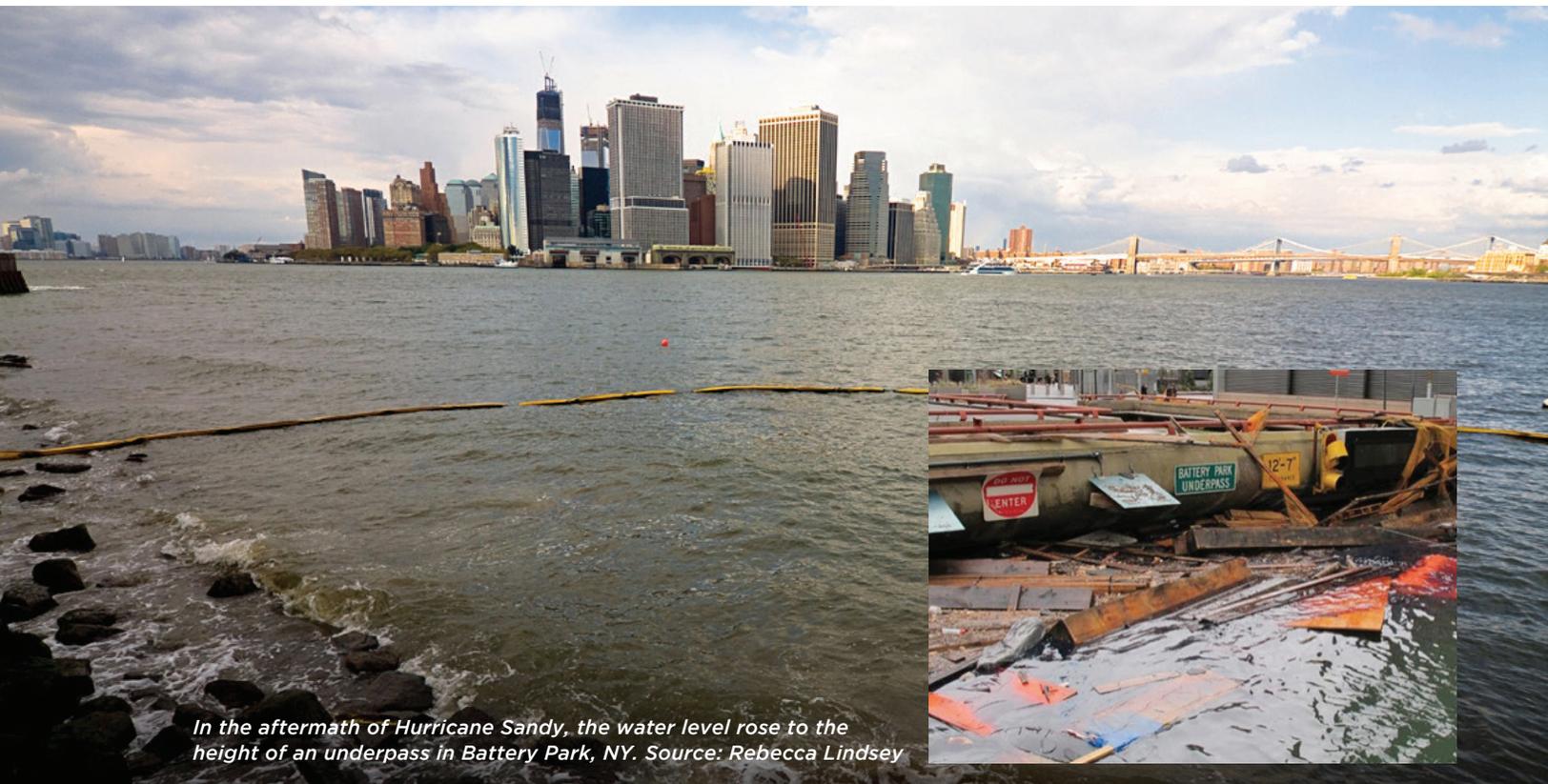
*Credit: Cooperative Institute for Research in Environmental Sciences*

leveraging their network of networks to identify experts who may be called upon to answer questions; and anticipating common questions (e.g. what is the link between the floods and climate change?). Post floods, WWA's rapid response was followed by a long-term response that included high resolution weather modeling of the 2013 event and a similar 1938 event, a four page brief, collaborating with the University of Colorado's Natural Hazards Center on a post-event survey, and convening a research symposium among other activities. The WWA team was nimble, quickly responding to short-term requests and thoughtfully and critically engaging in the long-term process of preparedness.



## EXTREME EVENTS

The Consortium for Climate Risk in the Urban Northeast (CCRUN) had forecasted the impacts of extreme events like Sandy well in advance (e.g. projected water elevation and hardest hit areas of such a storm). Members of the CCRUN team co-chair the New York City Panel on Climate Change (NPCC) that has led the charge to provide climate risk information in New York City since 2008. Post-Sandy, the NPCC was charged by former-Mayor Michael Bloomberg to develop new climate risk information to inform the Special Initiative for Rebuilding and Resiliency (SIRR), effectively New York City's plan for recovery from Hurricane Sandy. In addition to providing leadership on this effort, RISA resources were mobilized to conduct rapid scientific assessments in response to SIRR.



*In the aftermath of Hurricane Sandy, the water level rose to the height of an underpass in Battery Park, NY. Source: Rebecca Lindsey*

As reflected in written comments from participants at the annual meeting, these two RISA teams challenged other teams to think about what their response might be in the occurrence of an extreme event. For example, do they have an inventory of information for the public; which partners might be key at which phases; what would the means of communication be? Teams would also need to reflect on the role of trust and accountability in these situations. Some meeting participants expressed interest in learning how the public's perception of climate change differs in the aftermath of an extreme event.



## EXTREME EVENTS

While the immediate disaster events such as floods and storms receive much attention in the public media, less public attention is focused on other types of climate extremes, like freeze events and drought, which can nevertheless have substantial local and regional economic impact. For example, the Southeast Climate Consortium (SECC) RISA team has found that, during El Niño years, there is greater risk of fungal disease in strawberries thus impacting strawberry farmers' livelihoods. The SECC has designed tools based on seasonal forecasts that farmers can use to anticipate and respond to changes in climate that might impact their harvest. They have also provided producers with strategy options for both mid-term and long-term time frames. As a result of over five years of collaboration, SECC has been able to build on and refine the tools based on active advice of strawberry farmers on their needs, thus improving the usability of tools.

Drought is another slow onset extreme driven by climate trends. Since 1997, the Climate Assessment for the Southwest (CLIMAS) team has been working on the various dimensions of drought, from the physical processes underlying drought to measuring the impacts on industry and other sectors (e.g., cotton) to studying governance of water and adaptive water management strategies. More recently, the CLIMAS team has found that the Southwest has experienced several multi-decadal megadroughts in the last 2000 years, with the longest lasting 50 years, with only a 1-year break of above normal precipitation. Risk of future such megadroughts has been significantly underestimated, and CLIMAS is working to help obtain improved estimates of future drought and megadrought risk.

Droughts in 2011 in the southern Plains and in 2012 across the central U.S. have provided the Southern Climate Impacts and Planning Program (SCIPP), and its new team member the National Drought Mitigation Center (NDMC), with multiple opportunities to investigate recent lessons related to drought risk management strategies, often in close partnership with the National Integrated Drought Information System (NIDIS). SCIPP, the NDMC, NIDIS, and other partners including State Climatologists have been working on drought service assessments for both the 2011 and 2012 droughts. The presentation also highlighted the series of webinars, Regional Climate Outlooks, and stakeholder-targeted workshops that have been taking place across the region. Both SCIPP and the NDMC are working on evaluation efforts to survey participants involved in these activities. A new NIDIS Regional Drought Early Warning System being developed in the Missouri River Basin will provide another great opportunity for SCIPP, WWA, and the NDMC to build more linkages and networks with a variety of stakeholders to improve drought risk management in this region in the upcoming years.



## EXTREME EVENTS

Another complex region where extreme weather events interplay with economics and social dynamics is the Arctic. The Alaska Center for Climate Assessment and Policy (ACCAP) provides decision-making support in a rapidly changing region, where wildfires are burning more acres and coastal storms are combining with declining summer sea ice. In response to wildfires, based on interaction with fire management officers, ACCAP has created a web-based tool to show seasonal fire forecasts for Alaska. In the context of sea ice and storms, the ACCAP team has directly engaged stakeholders in developing decision-support tools (e.g., the Sea Ice Atlas), has consulted and partnered with the Interagency Arctic Research Policy Committee in creating the Integrated Arctic Management Report, and contributed to the National Centers for Environmental Predictions' storminess outlook.

In the face of extreme events, the diversity of work conducted by RISA teams has resulted in a variety of outcomes, with economic, diplomatic, agricultural, and social benefits. The presentations offered specific examples of the use and value of climate information in reducing impacts and risks associated with extreme events, both short-term and long-term. They also demonstrated the overall importance of the RISA teams and their interactions with the public in effectively developing and communicating that information.



*Fire crowning in black spruce, Nenana Ridge Experimental burn. Photo by Dale Haggstrom, courtesy of SNAP/ACCAP.*



## KNOWLEDGE NETWORKS

While the contributions of the physical sciences to our understanding of climate have been significant, the social sciences continue to play a crucial, but under-recognized role. From its inception, the RISA program has been cognizant not just of the human dimensions of climate variability and change but also of the importance of social science in understanding those dimensions. On the one hand, RISA teams work with stakeholders to ensure the information they are producing is usable. On the other, they spend significant time conducting research on stakeholder engagement, decision contexts, human behavior, institutional practices, economics, and social vulnerability to climate impacts.

In any particular region, there may be several organizations (federal, state, nonprofit, private) that provide climate information and services. RISA teams need to better understand the range of capabilities that exist within the context of regional needs. Armed with this understanding, RISAs can be more impactful about where they focus their efforts and how they leverage partnerships. The knowledge networks session presented a cross-section of research being done on analyzing networks of scientists and decision makers and understanding how information flows within and across these networks. Presentations also included discussions of specific methods used for understanding information flows, transfer and uptake.

The key questions driving the knowledge networks session were:

- How can network research contribute to RISA's overall goals?
- What are the opportunities and limitations involved in network research in the context of RISAs?
- How can network research contribute to a better understanding of RISA's overall framework?

The first section addressed how to assess stakeholder needs for capacity building and how to incorporate stakeholders into an effective network. A cross-RISA study involving the Great Lakes Integrated Sciences and Assessments (GLISA), the Western Water Assessment (WWA), and the Carolinas Integrated Sciences and Assessments (CISA) looked at key players and key documents to better characterize knowledge dissemination within the regions of the Intermountain West and the Carolinas. The study focused on climate change and policy with the goal of understanding the roles of networks and the main themes that emerge from them. Mapping out and exploring these networks can potentially help RISA teams prioritize key partnerships. Research showed that in some contexts, having multiple partnerships is itself strategic. In the politically sensitive Carolinas, for example, decision-makers rely on multiple sources of climate information thus multiple partners are considered advantageous. The choice of the source of climate information is based on three elements: 1) how relevant the source's job responsibilities are to the decision being made, 2) trust, and 3) convenience (as measured by familiarity with and accessibility to the source).



# KNOWLEDGE NETWORKS

The second section presented examples of network analysis from three RISA teams, GLISA, Pacific Islands RISA, and the Alaska Center for Climate Assessment and Policy (ACCAP). ACCAP has undertaken an analysis of the climate science, services, decision-making, and adaptation networks in Alaska to inform their own program planning and research. Similarly, the Pacific RISA used network analysis to identify spatial and knowledge-related information gaps among climate professionals in Hawaii and the US-Affiliated Pacific Islands. Results showed a highly connected network across the Pacific Ocean (see network map below). The analysis also showed differences amongst islands on perceptions of climate risk, of responsibility for climate impacts, etc., which has helped the team work more effectively with stakeholders and forge new connections both nationally and internationally.

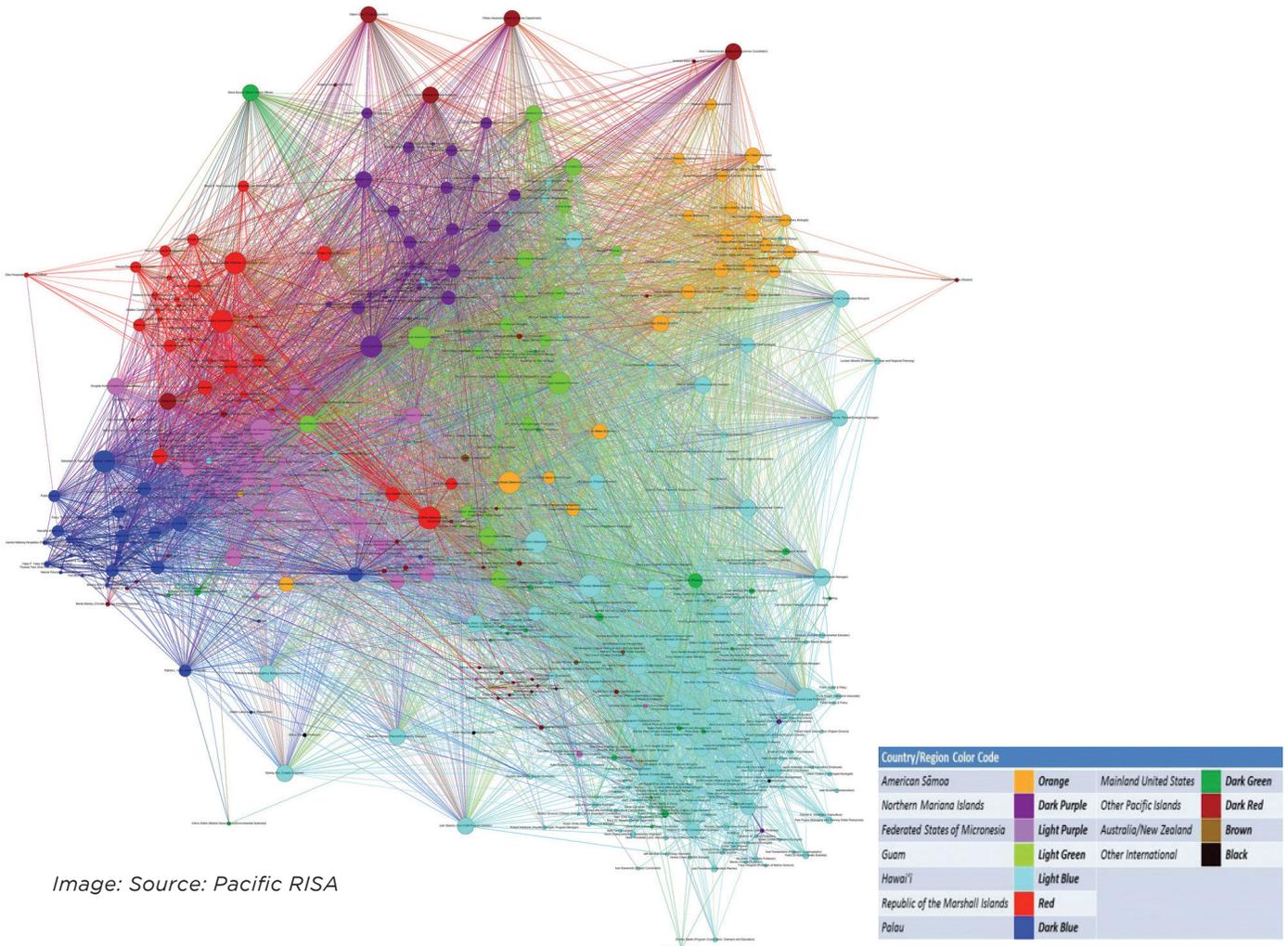


Image: Source: Pacific RISA

Climate change professionals within the core Pacific RISA regional network of Hawai'i and the US-Affiliated Pacific Islands (n=452), grouped according to country. Larger circle sizes represent high centrality, or level of connectivity, among individuals within the network. This map reflects the dense international connectivity among survey participants in the region. The full-sized network map can be downloaded here: <http://www.flickr.com/photos/pacificrisa/11345330443/sizes/l/in/photostream/>



## KNOWLEDGE NETWORKS

In the early days of GLISA, the team wanted to use formal network analysis to identify and understand key players in the region to target engagement with them. The study evolved into understanding how knowledge is transformed as it diffuses through the social structure of the Great Lakes region. Preliminary results suggest that as knowledge diffuses from scientists to practice, the knowledge assumes a language distinct from language used in climate change; in fact, users may not even know that the knowledge they are using is somehow connected to climate change. Those involved in bridging from science to decision making, “bridgers,” often influence who is involved in writing documents about climate impacts and planning and thus who is part of networks of key players.



*A scenario planning workshop that the Climate Impacts Research Consortium (CIRC) RISA held in April 2013 in Idaho, illustrating how social scientists and researchers work with stakeholders to understand their needs to aid decision-making. Source: John Stevenson.*

A lively discussion around using diverse frames for communication arose because RISAs have seen evidence that “bridgers” adjust their word choice to the stakeholder groups especially when working on controversial topics. In the personal whiteboards, a few meeting participants commented specifically on the use of the word “climate” in the RISA mission statement. Some participants insisted that RISA’s need to maintain leadership in “climate” research communities.



## KNOWLEDGE NETWORKS

By not using “climate,” RISAs could, in fact, raise concern among partners. At the same time, there is also concern that climate programs have had to bear the effects of numerous and deep budget cuts despite the positive impact of RISA work among a wide array of constituents from ranchers to farmers.

For example, CIRC works with a wide array of constituents in the Pacific Northwest, actively fostering and supporting individual and organizational stakeholders who are part of existing or emerging knowledge networks. The intention is to provide network members with information that builds on existing capacity for adapting to climate changes. For example, CIRC facilitated conversations with stakeholders of the Big Wood River Basin in Idaho to identify those aspects of the basin that stakeholders care for and wanted to ensure into the future. These endpoints were then used to foster conversation about characteristics of a community adapted to the effects of climate change, discuss a range of pathways to get to these desired endpoints, and ultimately model future scenarios driven by climate and population change over the next century.

RISAs serve both a knowledge generation (sometimes knowledge dissemination) and a knowledge application role, which can be time and resource intensive. Based on insights from research on networks and engagement, the GLISA team proposed a new conceptual model (the Boundary Chain approach) for how organizations such as RISAs might interact with partner boundary organizations to maximize financial and human resources and leverage less tangible ones (e.g. trust and legitimacy). The team illustrated the model with the GLISA experience of funding other boundary organizations through which GLISA’s climate scientists could interact. Key to the conceptual model has been the high degree of interplay between organizations like RISAs and boundary organizations and the “fit” of the information produced to the needs of users. At the meeting, participants discussed whether network analysis, although an important method to track transformation in language and key nodes in a network, could also be applied as an evaluation tool. Although some aspects of network studies could illuminate knowledge flow, this type of analysis has limitations especially given that the resulting network maps depict a specific point in time and can be insufficient to capture all users. Given that RISA activities involve provision of climate services and capacity building, mixed-methods approaches to evaluation and engagement research are more appropriate. However, on the whiteboards, participants did express interest in using network analysis to describe how the services that RISAs provide compare to those provided by other federally funded but regionally located organizations, such as the Department of Interior’s Climate Science Centers and Landscape Conservation Cooperatives.

Network analysis could identify RISA’s roles in various settings among a range of actors. However, deciding the point in the network at which to start the analysis must be given careful consideration. Network analysis can certainly offer us data about where people go for climate information, who are their trusted sources, and how their knowledge has evolved over time.



## FUTURE DEVELOPMENT OF THE RISA PROGRAM:

*Coordinating a  
National Network*

The second day of the annual meeting was devoted to discussion about RISA's governance structure and communications issues, building on discussion from the first day on the impact of RISA work and the utility of network analysis and understanding stakeholder needs to make strategic decisions.



*Hajo Eicken in the field. Photo by Matt Drunkenmiller, courtesy of SNAP/ACCAP*



## FUTURE DEVELOPMENT OF THE RISA PROGRAM:

### *Coordinating a National Network*

#### **The outcomes of the second day include the following:**

- ***Articulating milestones towards RISA's goal.*** Researchers actively contributed to discussion of milestones towards achieving the goal of the RISA community. Both orally and through written feedback, participants shared their thoughts on what their community of practice ought to hold as a goal and the milestones for evaluating whether the goal has been reached.

- ***Building a community of practice.*** The annual meeting also was an important introduction of new staff to the RISA community. Program managers (PM) who are often the backbone of the community stay in their RISA PM positions for a considerable amount of time. This metric is indicative of the commitment and, we posit, the sense of community that RISAs espouse. The annual meeting is an excellent opportunity to not only be exposed to the breadth of research and impacts of the RISAs, but also the beginning of training scientists to work with decision makers and to start building relationships which will foster collaboration. In fact, many participants expressed their support for training scientists to work with decision makers as a key objective for achieving RISA's mission.

- ***Partnerships.*** The RISA program as a whole and the individual teams have been coordinating with a range of federal, state and local partners to develop new knowledge and enhance the capacity of decision makers to use climate information in management and planning. In particular, RISAs played an important role in developing technical reports and engaging decision-making entities in the National Climate Assessment. RISAs are also engaging with the newly forming USDA regional climate hubs. The demands for RISAs to work with a growing landscape of partners needs to be balanced with the need for the teams to conduct research and meet the needs of their existing partners within region. There is also an opportunity to collaborate with and exchange ideas with their international partners, such as the Australian CSIRO agency focused on adaptation; conversations will continue to explore these emerging partnerships.

- ***Consensus on the need for a RISA-wide communications plan.*** The teams also committed to engage in a communications plan aimed towards constituents and especially those who can actively share the impact of RISA work with Congress and local representatives. RISA teams have been successful partly because they are aware of local context, players and needs. Given the grassroots nature of RISA teams there was discussion about how to build a national campaign/brand while preserving the local identity. The research on the diffusion of language and stakeholder needs can be valuable when thinking about how to communicate RISA's impacts.

- ***Establishing an implementation team.*** A final outcome was a plan to move forward with establishing an implementation team that would lead the writing of a communications plan. Every annual meeting generates dozens of ideas for how to improve the program; the commitment to establish an implementation team, however, recognizes the importance of prioritizing the ideas and implementing them in a staggered and coordinated fashion.



## FUTURE DEVELOPMENT OF THE RISA PROGRAM:

### *Coordinating a National Network*

The 2013 RISA Annual Meeting reflected the diverse work and the methodologies our RISA teams employ. Our teams showcased the breadth of original research, which span multiple disciplines, scales and methodologies. The unifying principles and driving force of this research is the utility of climate knowledge and methods of effective engagement.

Common themes from meeting participants, including their feedback on the whiteboards, were the following:

- RISA research reflects diverse stakeholders' perspectives and needs
- Teams articulated growing interest in evaluation methods, including developing indicators of progress towards climate-relevant decisions including adaptation. Many participants used the whiteboards to suggest metrics and methods for evaluation.
- Teams are now more conscious of how social science and interdisciplinary research methods can inform the work of physical sciences than in earlier stages of the RISA program
- Interest in looking at social movement literature to think about how behavior changes can be affected
- The need to be more sophisticated in communicating the impact of RISA work on decision making and to ensure that our stakeholders are communicating these results to NOAA, Congress, the White House Administration, and key policy officials.

Conversations with NOAA's federal partners and input from regional stakeholders will continue to influence the direction of the program. The annual meetings provide an important opportunity to discuss these issues and share insights and findings across the network of RISA teams.



*Appendix A*  
**2013 RISA  
 ANNUAL MEETING  
 PARTICIPANT LIST**

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Appendix A  
**2013 RISA  
 ANNUAL MEETING  
 PARTICIPANT LIST**

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*\*Invited but unable to attend*





Appendix B

# AGENDA

## 2013 RISA Annual Meeting

December 3–December 5, 2013 • La Jolla Beach and Tennis Club Hotel

### Tuesday, December 3, 2013

7PM No-host, group dinner at the Shores Restaurant, 8110 Camino Del Oro, La Jolla, CA 92037

### Wednesday, December 4, 2013

7:15AM	Breakfast	La Sala West
8:00-8:15AM	Introductions	Walnut Lounge
8:15-8:45AM	Welcome & Opening remarks • Wayne Higgins, Director, Climate Program Office, NOAA	
8:45-9:15AM	Meeting Overview • Adam Parris, RISA Program Manager	
9:15-10:30AM	Session 1: Extreme Events Moderated by Anne Steinemann, CNAP • Radley Horton, CCRUN – Hurricane Sandy recovery • Sarah Trainor, ACCAP – Alaska/Arctic sea ice and storms • Kristen Averyt, WWA – Colorado flooding	
10:30-10:45AM	Break	La Sala West
10:45AM-12:15PM	Session 1 ( <i>continues</i> ) • Mike Hayes, SCIPP – NIDIS • Vasu Misra, SECC – Southeastern drought and cyclones • Jonathan Overpeck, CLIMAS – Drought, wildfire, landscape management	Walnut Lounge
12:15-1:15PM	Lunch- off site	
1:15-1:45PM	Session 2: Did you know • Caitlin Simpson, CPO, NOAA • Tanushree Isaacman, CPO, NOAA	Walnut Lounge
1:45-3:00PM	Session 3: Knowledge Networks Moderated by Maria Carmen Lemos, GLISA • Ken Frank, GLISA • Victoria Keener, PacRISA • Sarah Trainor, ACCAP • Nathan Kettle, ACCAP	
3:00-3:45PM	Break	Front of Walnut Lounge
3:45-4:30PM	Session 3 ( <i>continues</i> ) • Kirstin Lackstrom, CISA • Lisa Dilling, WWA	
5PM-6:30PM	Reception at Scripps, Forum Hall, 8610 Kennel Way, San Diego, CA 92037	

### Thursday, December 5, 2013

7:15AM	Breakfast	La Sala West
8:00-9:00AM	Session 6: Implementation Strategy + Implementation Team • Kristen Averyt, WWA • Tanushree Isaacman, CPO, NOAA	Walnut Lounge
10:00-10:15AM	Break	La Sala West
10:15-11:00AM	Session 6: Implementation ( <i>continues</i> ) Government/Legislative Affairs + Communication Moderated by Claudia Nierenberg • Kathleen Ritzman, Federal and State Government Relations and Strategic Planning, Scripps • Keith Ingram, SECC • Anne Steinemann, CNAP • David Herring, CPO, NOAA	Walnut Lounge
11:00AM-12:00PM	Session 6: Implementation ( <i>continues</i> ) Partnerships Moderated by Caitlin Simpson, RISA Program Manager • Emily Cloyd, USGCRP • Claudia Nierenberg, CPO, NOAA • Mark Howden, CSIRO	Walnut Lounge
12:00PM-12:45PM	Lunch on-site	La Sala West
1:00-2:00PM	Session 4: Wiley, Climate in Context • Adam Parris • Gregg Garfin	Walnut Lounge
2:00PM-3:00PM	Session 7: Meeting outcomes + Concluding remarks	
3:30PM	Walking tour of Scripps	



## ACKNOWLEDGEMENTS

With great appreciation, we acknowledge the contributions to the meeting and this report of the RISA investigators and participants at the meeting. Tanushree Isaacman and Anne Steinemann in particular were tireless in their efforts to develop a coherent agenda and ensure a successful meeting.

We would like to thank Amrith Sagar and Sarah Close for their edits and contributions to the production of this report and Richard Rivera for his creative design. We would also like to thank Tara Torres and Brian Jackson of UCAR for their help with the planning and logistics of the meeting.

Finally, this report owes a debt of gratitude to Tanushree for her initial heavy lifting in writing and pulling together the material for this report.



## REFERENCES

Gutson, David. "Boundary Organizations in Environmental Policy and Science: An Introduction." Sage Publications Inc. (2001).

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*Special thanks to the RISA teams for their written input and graphics for the report and above all, for their tireless effort at working to build adaptive capacity across the nation.*